

Date: June 26, 2013

Place: Stanley Consultants Office
Las Vegas, Nevada

Project/Purpose: NV Energy - Reid Gardner Station
Implementation of Administrative Order on Consent (AOC)
Quarterly Meeting

Attendees: Alison Oakley/NDEP
Brad Cross/Arcadis
Tony Garcia/NV Energy
Jason Reed/NV Energy
Mike Rojo/NV Energy
Matt Johns/CH2M Hill
Becky Svatos/Stanley Consultants
Africa Espina/Stanley Consultants
Jonathan Sarich/Stanley Consultants
William Carrig/Stanley Consultants
Notes By: William Carrig/Stanley Consultants

A meeting was held between NV Energy (NVE) and Nevada Division of Environmental Protection (NDEP) representatives on June 26, 2013 to discuss the status of the implementation of the AOC signed by NVE and NDEP on February 22, 2008. Topics discussed during the meeting are summarized below.

Preliminary Source Area Identification and Characterization Report (PSAICR) – In response to NDEP comments dated May 14, 2013 on the Draft PSAICR dated November 2012, NVE/Stanley Consultants revised the PSAICR and associated Document and Response to Comments Tracking Form. Hard copies of the revised report text, Appendix D, and form were provided to NDEP at the meeting for discussion purposes. All of NDEP's comments were discussed during the meeting. Major items discussed include the following:

Source Area Prioritization – As requested by NDEP, NVE prioritized the 35 potential source areas to determine which should be addressed first. The prioritization criteria used were similar to those suggested by NDEP, as follows:

- Proximity/potential pathways of contamination to receptors
- Current impacts to groundwater
- Likelihood of future impacts to groundwater
- Continuing source of contamination
- Chemicals of concern

Using these criteria, NVE identified five potential source areas as “high priority” or “A” priority. Seven source areas were identified as “medium priority” and were assigned a “B” priority. The remaining 23 potential source areas were identified as “low priority” and were assigned a “C” priority. These assigned priorities are preliminary and are subject to change as further information is gathered during the Conceptual Site-Wide Model (CSM) process. NDEP

generally agreed with this approach and with the priorities assigned to the source areas, but will review the priorities in detail following the meeting.

Contaminated Material Left in Place – NDEP had a number of comments regarding soil beneath former ponds that may be impacted by residual total dissolved solids (TDS) from the pond operations. Even after solids and underlying soils are removed from a pond area down to the groundwater table, NDEP is concerned that TDS-impacted soils in the groundwater table could act as a continuing source of groundwater contamination. In their response to NDEP comments on specific source areas, NVE revised the PSAICR to state that further soil characterization would be conducted in the areas of former ponds to address this concern. NVE understands that even though the NDEP Bureau of Water Pollution Control approved closure of Ponds D, F, and G operating permits; they have not achieved pond closure with the NDEP Bureau of Corrective Actions.

Groundwater Characterization Groupings – NDEP stated that PSAICR references to future “site-wide groundwater characterization” were too broad and suggested grouping source areas. NVE proposed four groundwater characterization groupings for source areas that are characteristically, hydrogeologically, and geographically similar, as follows:

- Mesa Area
- Ponds Area
- Petroleum Area
- North Station Area

These groupings are preliminary and are subject to change as further information is gathered during the CSM process. NDEP generally agreed with this approach.

Plant Coal Source – NDEP requested more information on the coal used at the Reid Gardner Station (Station) and changes in coal source since operations began. NDEP revised the PSAICR to state that the primary source of coal at the Station has been the same until recently when some coal has been used from another source for Units 1, 2, and 3 only. NVE stated that even if the coal source varied over the years, the Site-Related Chemicals (SRC) list includes parameters likely to be present in any coal source. The relative concentrations of parameters could vary in different coal sources, but testing soil and groundwater samples for SRC parameters would still detect parameters that could be from coal. NDEP agreed that the proposed revisions to the PSAICR text are adequate to address their comment.

Other Potential Source Areas/Work Plans – NDEP noted that the area south of former Pond D and the E Ponds appears discolored in aerial photographs and requested data regarding the aerial and vertical extent of soil impacts in the area or a work plan for further investigation. This comment, as well as a number of other NDEP comments, requested specific sample collection to further characterize soil and/or groundwater at various potential source areas. The intent of the PSAICR is to summarize available information on each source area and identify which sources require further soil and groundwater characterization. The specifics of additional characterization efforts (e.g., number of samples, sample locations, analytical parameters) were not included in the PSAICR, but will be included in future work plans that must be approved by NDEP prior to implementation. In particular, NDEP stated that four consecutive samples of groundwater will be required to demonstrate that groundwater concentrations are below action levels. NDEP generally agreed with this approach.

Waste Stream Analysis – NDEP requested a table of analytical data for typical waste materials generated at the Station. NVE stated that only limited data are available. Characterization

required for disposal in the onsite landfill consists only of TCLP analyses, not total parameter analyses. Available Material Safety Data Sheets (MSDSs) and laboratory data for waste materials were reviewed when developing the SRC list. When specific source areas are characterized in accordance with future work plans, SRC parameters will be included in the analyses if they are believed to be present in the waste present at that source area. Where appropriate, the waste (e.g., pond solids, ash) will be characterized as part of the source area investigations. TCLP analyses can be used to demonstrate that a waste is not likely to leach to groundwater at a particular source area. NDEP generally agreed with this approach.

NDEP will review the draft revised PSAICR text, Appendix D, and Document and Response to Comments Tracking Form provided at the meeting for discussion purposes and will either request further discussions with NVE or provide a letter stating that the PSAICR can be finalized as discussed during the meeting.

Future Reid Gardner Station Operations – In accordance with the recently passed NVision legislation, NVE is anticipating that Reid Gardner Station Units 1, 2, and 3 will be shut down by the end of 2014 and Unit 4 will be shut down by the end of 2017. The details of how these changes will occur are still being determined.

Future Work Plans

In accordance with source area priorities included in the revised PSAICR and the Geologic Data Gaps priorities previously provided to NDEP, NVE plans to prepare three work plans in 2013 to address the highest priority source areas and geologic data gaps, as follows:

Muddy River – NVE indicated that they will address data gaps associated with the Muddy River and its interaction with groundwater in an iterative approach. This initial work plan will focus on developing a water balance for the Muddy River within the Station area. By measuring river flow and major surface water contributions and diversions from the river in the Station area, the net groundwater inflow/outflow can be estimated by difference. In addition, monitoring wells would be installed adjacent to the river at select locations to measure groundwater elevations and evaluate the geology next to the river. NDEP stated that they generally approve of this approach.

Area South of Ponds D/E – NVE stated that they will develop a work plan to install monitoring wells on land owned by BLM south of Ponds D/E. An additional well on NVE property approximately 800 feet north of P-8R will also be included in this work plan, as requested by NDEP. The work plan will include soil sampling at select locations to evaluate the vertical extent of soil contamination. Once NDEP approves the work plan, NVE will begin the process of obtaining BLM access to install and sample the monitoring wells. Based on current experience, this access process is expected to take at least a year to complete.

Petroleum Area – NVE also plans to take an iterative approach to characterizing the nature and extent of petroleum contamination onsite. The initial workplan will focus on better characterization of the extent of free product on the groundwater and in soils, as well as identification of free product sources and preferential pathways for migration. Future investigations will evaluate the extent of dissolved groundwater contamination and soil contamination associated with the free product. NDEP and Arcadis suggested the use of Laser Induced Fluorescence to more efficiently characterize the free product areas and identify locations for installation of permanent wells. NDEP has experience with this technology and Arcadis indicated that they have used it on many different sites.

Diesel Recovery System – A Revised Diesel Remediation System Design Work Plan was submitted to

the NDEP on June 11, 2013. The NDEP reviewed the Work Plan and discussed their preliminary comments. Because the remediation system changes are focused on improving the existing treatment system for the recovered groundwater so it can again be used for onsite dust control in accordance with NVE's discharge permit, NDEP requested revising the Work Plan title to state that it is an interim system. NDEP will request a complete reevaluation of the remediation system after the Petroleum Area Work Plan discussed above has been implemented. Inclusion of a contour map showing the maximum extent of free product and its thickness was discussed. It was agreed that since the maximum free product thicknesses in onsite wells occurred at different times, it would not be appropriate to combine them on one figure. A table listing the maximum product thicknesses detected in monitoring wells will be included.

Arcadis also stated that a bail-down test should be conducted at locations such as HM-50R and HM-48 to better understand how much recoverable free product is present. If there is not much recoverable free product present, the expense of permanently connecting a well to the diesel remediation system may not be justified and a passive product recovery device can be used in the well.

NDEP stated that since trichloroethylene (TCE – a listed waste under RCRA regulations) is present at the site, it is possible that recovered free product and/or spent carbon from treating recovered groundwater may also be a listed waste. NVE will evaluate this issue.

NVE said they are lowering the level in the 6,000-gallon holding tank so that it can be moved into the concrete containment pad that has been built for the treatment equipment. The new treatment equipment included in the Work Plan has been purchased, but will not be installed until NDEP approval is received. NDEP will submit a letter to NVE with their final comments on the Work Plan revisions.

Evaluation of Background Conditions – A Draft Background Report that includes a summary of the background field activities, a statistical evaluation of background soil data, and a discussion of the aquifer testing results was submitted to NDEP for review on March 28, 2013. NDEP and Arcadis had begun reviewing the report and provided some preliminary feedback. Because of the relatively short duration of the aquifer testing, absence of observations wells, and field difficulties associated with the very hot weather, the results of the aquifer testing should be presented in a qualitative rather than quantitative manner. NDEP suggested removing the AQTESOLV calculations. However, the drawdown information in Table 4-4 is helpful in showing that there is little connection between the different wells within a well cluster. Arcadis stated that future aquifer testing should be conducted in the winter to avoid temperature-related field difficulties.

NDEP stated that it appears that the overall approach for setting background soil levels, as discussed in the report, is appropriate. NDEP will provide written comments on the Draft Background Report in the near future.

NVE/Stanley Consultants are currently preparing a draft deliverable that discusses background groundwater levels. Groundwater background concentrations have been developed for three groupings (Muddy Creek-North, Muddy Creek-Mesa, and Alluvial) based on geochemical, geological, and statistical information. Once comments are received from NDEP on the first background deliverable, the NDEP comments will be addressed and the background groundwater information will be added to create a complete background report.

Geologic Data Gaps – A Geologic Data Gaps Prioritization Table was submitted to the NDEP on May 2, 2013. NDEP will not provide formal comments on this table, but agreed with the overall approach to prioritizing geologic data gaps as well as the priorities that were provided. The geologic data gaps will ultimately be included in the Preliminary CSM With Data Gaps deliverable.

Pond F Solids Removal – A Draft Pond F Solids Removal Completion Report was submitted to the NDEP on June 18, 2013. NDEP will review the report and provide comments.

Pond 4A/C1/C2 Solids Removal - NVE confirmed that solids removal activities at Ponds 4A, C1 and C2 are planned to begin in 2014. Solids Removal Work Plans will be submitted to NDEP for review in 2013.

Groundwater Sampling Plan – NVE/Stanley Consultants are preparing a memo to NDEP that requests reductions in monitoring wells and parameters included in the semi-annual groundwater monitoring program. This will be submitted to the NDEP for approval at a later date.

Groundwater Monitoring Reports (GMRs) - NDEP stated that they do not expect to provide many comments on the First Semi-Annual 2013 GMR although they will provide a comment letter to NVE. NDEP previously provided written approval of NVE's request to reduce GMR reporting to annual while continuing semi-annual groundwater monitoring. Data will still be submitted to the NDEP on a semi-annual basis and NVE will notify NDEP if unusual parameter concentrations or significant changes occur. The next GMR will be submitted to the NDEP by January 28, 2014 and will include groundwater contours from third quarter monitoring results. Future GMRs will be submitted by January 28 for the preceding year and will include third quarter groundwater contours.

BLM Land Purchase –NVE continues to pursue the purchase of land east of the Station and in the WMU-7 area. The BLM requested that NVE meet with the Moapa Band of Paiutes to address their concerns regarding this purchase. BLM will not process the Notice of Realty Action (NORA) until this meeting occurs. NVE has been in contact with the tribe regarding setting up a meeting, but a date has not been set.

NVE has received and commented on a draft BLM agreement for access to IMW-3S and D. The final agreement is expected soon and sampling of these wells is planned during the third quarter groundwater monitoring event.

Closure Plan Update – The *Closure Plan* provides a “road map” that describes the process by which remedial activities at the site and/or specific sub-areas of the site will be completed. This Plan discusses how soil and groundwater action levels may be established and which regulations and regulatory guidelines can be followed to demonstrate that corrective action activities have been completed. This plan was finalized in January 2008 and approved by the NDEP on March 12, 2008. Due to regulatory changes since then, the Closure Plan will be revised and submitted to NDEP this year.

Community Relations – NVE/Stanley Consultants stated that a revised Community Relations Fact Sheet will be prepared in 2013 and provided to NDEP to include on their website. The NDEP stated that their website has not been updated to include copies of the NDEP-approved reports from 2011 and 2012 that were previously provided. Stanley Consultants will re-send electronic copies of these reports to the NDEP to include on their website. The correspondence on the website is current, although NDEP would like to change the titles to be more descriptive.

CSM Visualization Workshop – A workshop to discuss the Preliminary CSM Visualization was scheduled for August 28, 2013 from 10:00 AM until 4:00 PM at the Stanley Consultants office in Las Vegas, Nevada. Workshop materials including two cross-sections, an outline of the CSM information available, and Stiff diagrams will be provided to NDEP at least two weeks prior to the meeting.

Next AOC Meeting – The next quarterly AOC meeting was scheduled for September 26, 2013. The time and location will be determined at a later date.

NDEP Action Items from Quarterly AOC Meeting on June 26, 2013

<u>Priority</u>	<u>Deliverables Already Submitted to NDEP</u>	<u>Submittal Date</u>	<u>Party Responsible</u>	<u>Notes</u>
1	Provide feedback on preliminary PSAICR revisions discussed at the June 26 AOC meeting	6-26-13	NDEP/ARCADIS	NVE/Stanley Consultants provided preliminary revised text, Appendix D, and Document and Response to Comments Tracking Form for discussion purposes.
2	Background Report (soil and aquifer testing)	3-28-13	NDEP/ARCADIS	
3	1 st Quarter 2013 semi-annual GMR	5-15-13	NDEP/ARCADIS	
4	Pond F Solids Removal Completion Report	6-18-13	NDEP/ARCADIS	
5	4 th Quarter 2012 Background Groundwater Data Validation Reports	4-1-13	NDEP/ARCADIS	
6	Pond F Soil Data Validation Reports	4-4-13	NDEP/ARCADIS	

	<u>Future Submittals and Action Items</u>	<u>Estimated Delivery Date</u>		
	Interim Work Plan for Diesel Recovery System	TBD	NVE	Revised report based on June 2013 NDEP comments
	Background Report (including groundwater)	TBD	NVE/STANLEY CONSULTANTS	Will also address NDEP comments on soil and aquifer testing sections previously submitted
	Petroleum Work Plan to investigate free product	2013	NVE	
	Work Plan to address area south of Ponds D/E	2013	NVE	
	Muddy River Work Plan	2013	NVE/STANLEY CONSULTANTS	
	Pond 4A and Ponds C1/C2 Solids Removal Work Plans	2013	NVE/STANLEY CONSULTANTS	NVE plans to begin solids removal activities in 2014.
	Groundwater Monitoring Reduction Memo	TBD	NVE/STANLEY CONSULTANTS	
	3 rd Quarter 2013 semi-annual GMR	1-28-14	NVE/STANLEY CONSULTANTS	

**NV Energy – Reid Gardner Station
Implementation of Administrative Order on Consent
Quarterly AOC Meeting
June 26, 2013, 10:00 AM
List of Attendees**

Name	Representing	Phone	E-Mail
Alison Oakley	NDEP	775-687-9396	aoakley@ndep.nv.gov
Brad Cross	Arcadis	480-905-9311	brad.cross@arcadis-us.com
Tony Garcia	NV Energy	702-402-5767	tgarcia@nvenergy.com
Mike Rojo	NV Energy	702-402-1319	mrojo@nvenergy.com
Jason Reed	NV Energy	702-402-5958	jreed@nvenergy.com
Matt Johns	CH2MHill	702-402-5416	matt.johns@ch2m.com
Becky Svatos	Stanley Consultants	319-626-3990	svatosbecky@stanleygroup.com
Africa Espina	Stanley Consultants	602-333-2348	espinaafrica@stanleygroup.com
Jonathan Sarich	Stanley Consultants	702-534-2123	sarichjonathan@stanleygroup.com
William Carrig	Stanley Consultants	319-626-3990	carrigwilliam@stanleygroup.com